

National Income And The War Effort— First Half Of 1942

By Milton Gilbert and Robert Bangs¹

ALTHOUGH the rearmament effort had been underway for a year and a half before December 7, the magnitude and tempo of the war program increased greatly after the attack on Pearl Harbor. This expansion in armament goals necessarily meant a drastic change in the underlying economic situation and in the character of the economic directives issuing from the Government war agencies. The period before Pearl Harbor was essentially one in which armament production was superimposed upon the civilian economy, despite the fact that after the middle of 1941 material shortages were leading to minor restrictions on civilian goods output. After Pearl Harbor, on the other hand, material shortages were so greatly intensified and the need for industrial facilities in the war effort was so pressing, that the release of economic resources from the civilian goods sphere of the economy was required on a large scale. Apart from the rising tide of military output itself, this releasing of resources from civilian goods industries was the characteristic feature of the past 6 months.

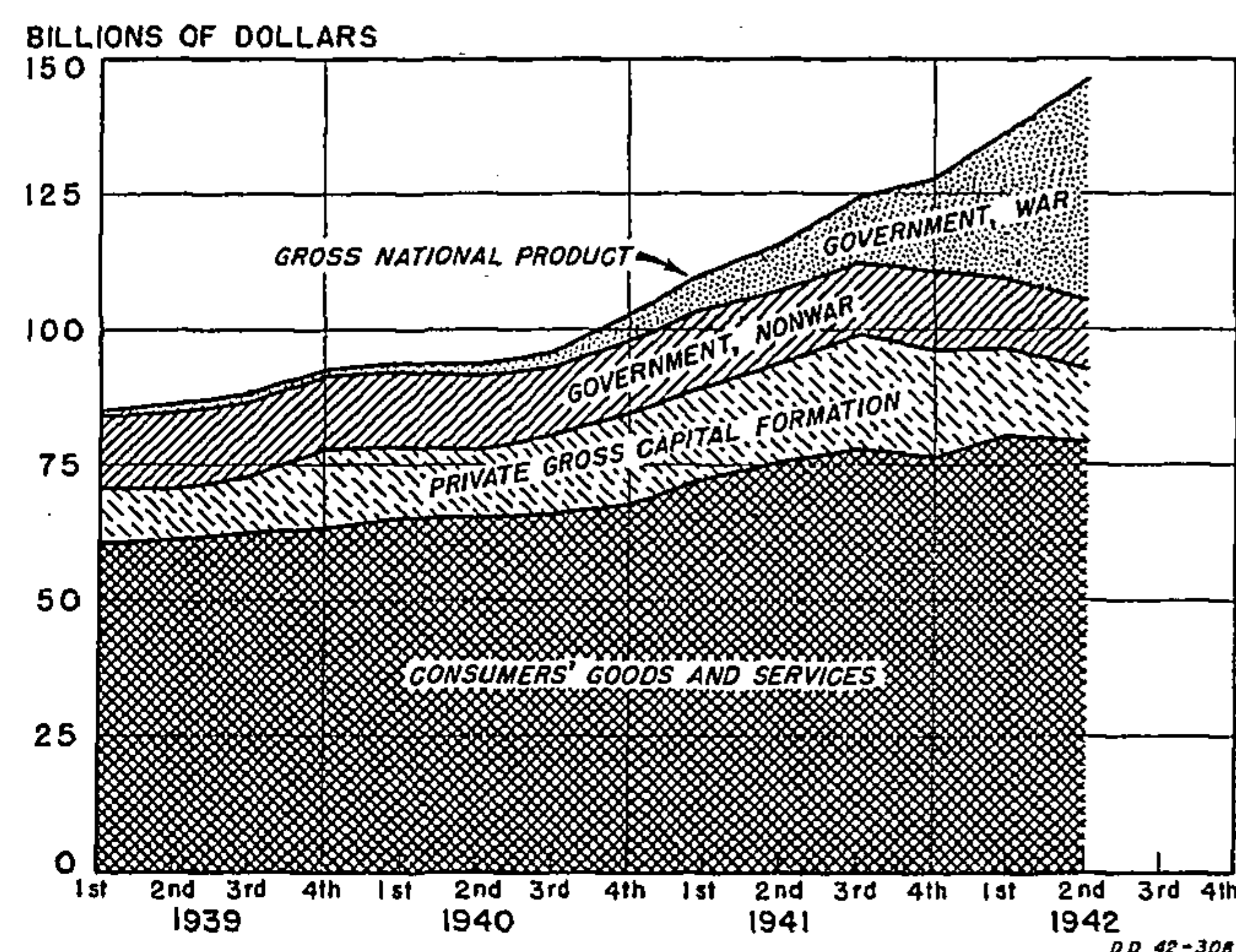
With economic activity at the end of 1941 on a scale well below the potential ceiling, ultimately limited only by availability of manpower, total production continued to rise during the first half of this year under the impetus of expanded war demands. Severe curtailments in nonwar industries, therefore, were more than offset by the rapid expansion of war output. In terms of current dollars, the gross national product in the second quarter of 1942 was flowing at an annual rate of more than 146 billion dollars as against the 1941 total of less than 120 billions or the last quarter 1941 rate of 127 billions. By the second quarter of 1942 the national income had reached an annual rate in excess of 112 billions. This figure compares with the 1941 total of less than 95 billions and the rate in the fourth quarter of that year of 103 billions. While the continued expansion of both these aggregates reflects the influence of rising prices, there remains nonetheless a significant rise in the physical flow of goods and services. It is estimated that the gross national product in real terms rose 15 percent from the second quarter of 1941 to the second quarter of 1942.

War Output an Increasing Fraction of National Product.

Needless to say, the expansion of war output dominated economic trends over the past 6 months. Fed

both by diversion of output from the civilian sphere and by over-all expansion in utilization of resources, the stream of war expenditures has risen sharply in absolute terms and has constituted an increasing share of total output. By the second quarter of this year war expenditures were running at an annual rate of nearly 41 billion dollars, in contrast to rates of 9 billion for the

Figure 3.—Utilization of Gross National Product.



Source: U. S. Department of Commerce.

comparable quarter of last year and 17 billion for the final quarter of 1941. In relative terms, the flow of war output rose from 8 and 13 percent of the gross national product in the second and fourth quarters of 1941, respectively, to 28 percent in the second quarter of this year. As related to national income, the more appropriate percentage for measuring the disposition of economic resources in terms of their earnings, the upward movement of the war-impact percentage has been equally impressive. In the second and fourth quarters of last year the relation of the earnings of productive resources paid out of war expenditures to total factor earnings was 9 and 15 percent, respectively. In the second quarter of this year this relation had risen to 31 percent.

Widespread use of these war-impact ratios as shorthand symbols expressing the degree of economic mobilization makes desirable a brief digression on their restricted meaning. In the first place, it must be recognized that the greater the degree of conversion of an economy to war, the less is the significance that can be attached to a ratio of this type. This is because the computation of the ratio must rest upon some arbitrary definition of what activities constitute the war effort. In the statistical tables presented in this article, for example, war expenditures are measured by the total

¹ While the statistical data incorporated in this article are a product of the National Income Unit as a whole, special mention must be made of the assistance of Mr. George Jaszi. In addition, the cooperation of the Munitions Branch of the Bureau of Research of the War Production Board, at whose request the quarterly estimates were undertaken, and the Current Business Analysis Unit of the Bureau of Foreign and Domestic Commerce was indispensable. All concerned wish it understood that quarterly estimates so soon after the event are necessarily more approximate than usual annual series.

expenditures reported in the Daily Treasury Statement, plus outlays of the national defense corporations not appearing in the budget, both adjusted to exclude such expenditures as do not constitute drafts against current output.² This definition does not realistically separate goods essential to the prosecution of the war from those used exclusively for nonwar purposes. Much that is required to maintain the nation at war remains in the civilian-goods sphere. In fact, it is not too much to say that, as the shortages become more generalized and more stringent, many types of output in the civilian sphere will undoubtedly command a higher order of priority than certain components of gross output now classified as war expenditures.

To illustrate: Capital equipment purchased by private industry is not included in war goods output, even though used entirely for armament production, whereas Government purchase of the same equipment for the same purpose is included in war expenditures. Similarly, food and clothing supplied to the armed forces are statistically war expenditures, while the corresponding expenditures of workers in war plants are statistically civilian expenditures, according to the definition used here. Furthermore, as an all-out war effort is approached, the arbitrariness of the separation between the war and civilian sectors of the economy is magnified; one can no longer tell from the percentage itself whether or not a greater war effort is possible. The difficulty in interpreting the ratio as it becomes relatively high may be seen from the fact that even though economic mobilization were complete, the ratio must necessarily remain far short of 100 percent. Moreover, even after the war effort had reached its peak, the percentage could continue to rise simply because a larger proportion of economic activity depended upon Government financing and might be counted as war expenditures in official bookkeeping.

In the second place, the trend of war expenditures does not accurately measure the distribution over time of the economic effort devoted to war, the measure being designed, rather, to approximate the volume of output currently available for war use. This is because the war expenditure total, month by month, is largely on a delivery basis. Consequently, it does not take account of much of the accumulation of goods in process in armament industries during the expansion phase of the war effort and the using up of this inventory at a later date. At the present time, of course, inventory is being accumulated in war industries at a very high rate, the available evidence indicating that the rate of such accumulation in the second quarter of 1942 may well have been over 3 billion dollars annually.

Finally, and most important, these war-impact ratios are often used with the tacit assumption that they measure the disposition between war and civilian uses of real resources in physical terms, even by those who recognize the tenuousness of the concept of the quantity of

real resources. Such, however, is not the case. As is well known, costs in war industries are substantially higher than costs of similar factors in nonwar industries, the only significant exception being the rate of pay of the armed forces. In support of this contention, it is certainly doubtful that either the rise in total output over the past year or the present magnitude of durable-goods production could have been attained without the large relative shift from civilian to war production. As a consequence, the impact ratio seriously overstates the fraction of "total quantity of real resources" currently devoted to the war effort. Put another way, it is not possible to visualize the quantity of goods and services received for a billion dollars of war expenditures in terms of the average quantity of nonwar goods and services obtainable for an equivalent sum. A statistical correction for this fact cannot be made at the present time but the evidence leaves no doubt that it would have to be substantial. It may be noted that this difference in factor costs as between war and nonwar industries is an important element contributing to the rise in total output, at a time when the composition of output is changing in favor of war goods.

Difficulties such as those mentioned make it necessary that care be exercised in interpreting movements in the ratios of war expenditures to national income or gross national product over time and in making comparisons of the ratios among various countries.

Changes in the Gross National Product.

An outline of the change that has come in the character of the economic situation during the first half of 1942 may be seen in table 3. Through the first three quarters of 1941 the absolute rise in the value of the gross national product consistently exceeded the increase in the value of war expenditures. In the fourth quarter of last year and the first quarter of the present year this relationship was reversed, although the difference between the changes in the two aggregates was slight. In the second quarter of 1942, however, the growth in war expenditures far exceeded the expansion in total output. By way of summarizing what happened during the past 6 months, it may be noted that the annual rate of war expenditures increased by 23.8 billion dollars from the last quarter of 1941 to the second quarter of this year, while the gross national product rose only 19.4 billion dollars at an annual rate over the same period. Thus, the growth in war expenditures was being made possible in part by a 4.4-billion curtailment in the rate of nonwar expenditures.

This curtailment in terms of actual dollars expended was, in fact, restricted to only one of the major components of gross national expenditure, namely, private capital formation. From a peak annual rate of over 20 billion dollars during the latter half of 1941 the aggregate of private gross capital formation fell to a rate of less than 14 billion in the second quarter of this year. Two of the major components of this aggregate,

² The above definition of war expenditures is used throughout this article.

namely, construction and equipment expenditures, fell sharply, reflecting the fact that the output of the construction and machinery industries was being purchased directly by Government to an increasing extent. Business inventories were still increasing at a substantial rate during the past 6 months, though there was some decline in the rate of accumulation from the fourth quarter of last year. This decline was a factor contributing to the sharp reduction in total private capital formation.

With respect to the other major components of gross national expenditure, changes over the past 6 months were relatively small. Nonwar Government expenditures appear to have been virtually constant, considering the somewhat random character of these expenditure flows quarter by quarter. It must be pointed out that the separation of Government expenditures into war and nonwar categories is done largely on the basis of broad agency groups, and that consequently the added wartime burdens on "nonwar agencies" tend to maintain the total of nonwar Government expenditures. The seasonally adjusted rate of consumer expenditures, on the other hand, was moderately higher over the past 6 months than during the second half of last year. This slight advance reflects, of course, the influence of rising prices, which more than offset the decreasing physical flow of goods and services to consumers.³

The Sources of War Output in Real Terms.

While the changing pattern of gross national product and expenditure in current dollars provides data of considerable importance for the analysis of the fiscal problems which the war has produced, this pattern does not mirror the real impact of the war program upon the economy. For this latter purpose, it is essential that some conception of the various expenditure flows in real terms be employed. With full recognition of all the inherent limitations involved, such a calculation has been attempted because of the basic necessity to analysis and policy formation of an approximate notion of the real sources of war "finance."

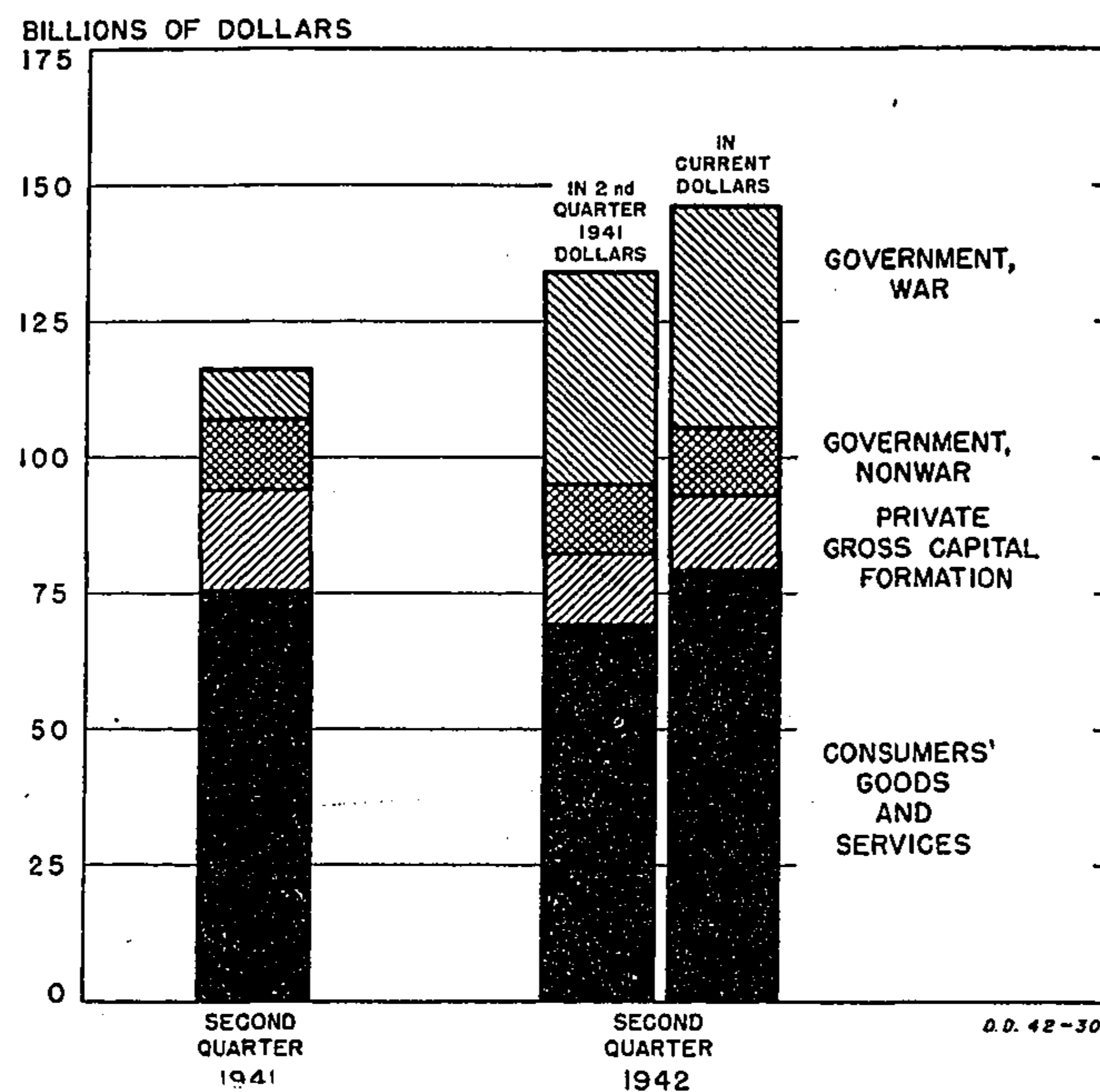
In order that changes up to the most recent period may be seen, the comparison of the gross national product in real terms was made between the second quarters of 1941 and 1942. The data are shown in figure 4 and table 2. As previously mentioned, the real gross product was increased by 15 percent over this period, the absolute figures being a rate of 116 billion dollars in the 3-month period a year ago as compared with a rate of nearly 134 billion in the second quarter of this year (second quarter 1941 prices used in both instances). As with the current dollar figures, the increase in real war expenditures dominated the upward movement of the gross product. In contrast to the estimates in current dollars, however, all other components are seen to have decreased in real terms. Consumers' expenditures in particular are running below

³ An analysis of the changing pattern of consumers' expenditures will be presented in a forthcoming issue.

the level of a year ago by a fairly sizeable margin in real terms, the relative levels being just reversed in current dollars.

From these data a table can be constructed showing the sources of real war output in the second quarter of 1942 relative to the pattern of a year earlier. The annual rate of war expenditures during the later period, in terms of prices prevailing during the earlier, was 39.2 billion dollars. Over this 1 year span the real volume of war output increased more than fourfold.

Figure 4.—Utilization of Gross National Product, Seasonally Adjusted Quarterly Data at Annual Rate



Source: U. S. Department of Commerce.

The sources from which this expanded flow of war output was derived are shown in the following table.

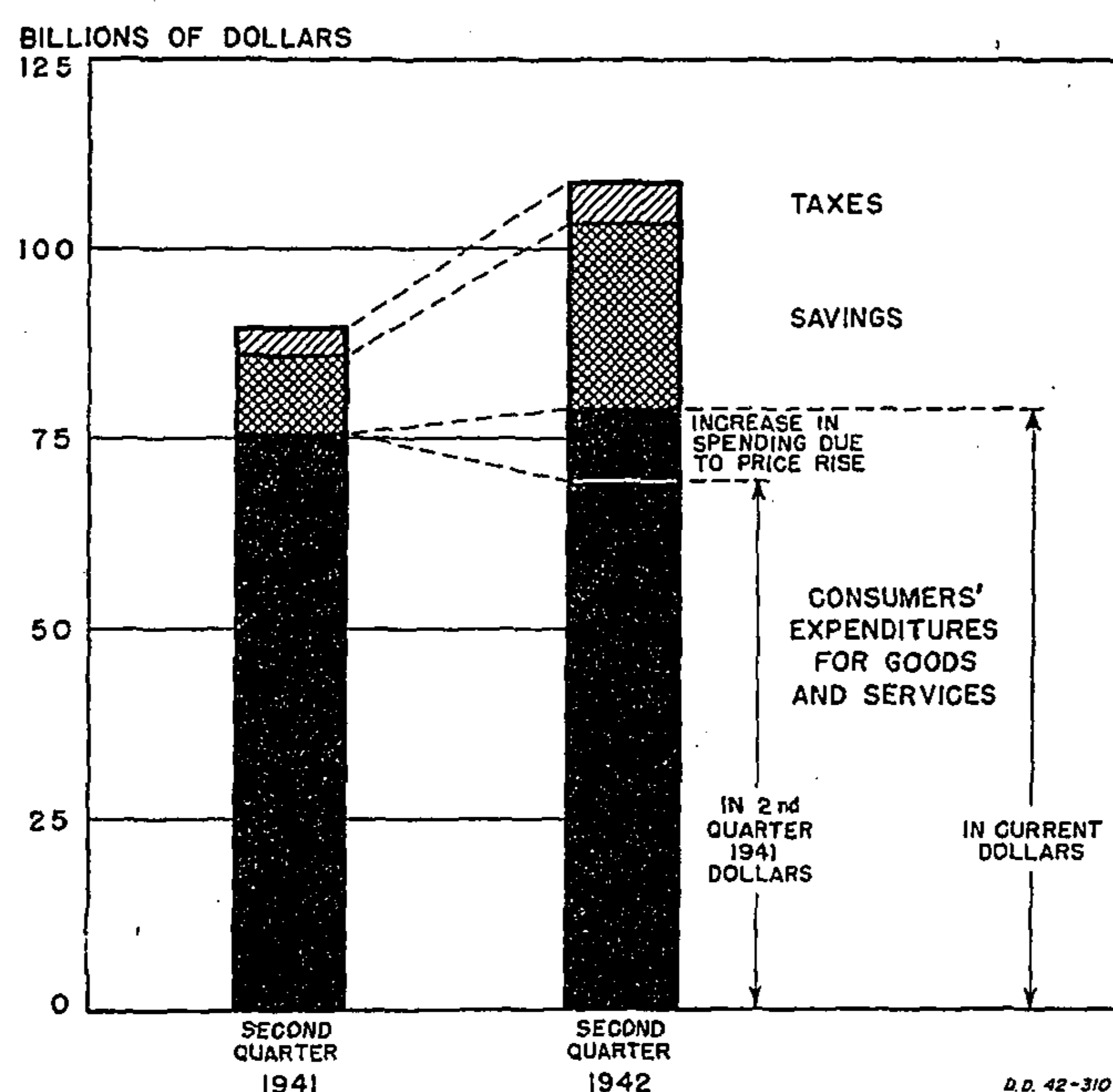
Increase of real war expenditures, 2d quarter 1942 over	
2d quarter 1941 (billions of dollars) ¹	30.2
Sources:	
Decrease in other Government expenditures	6.0
Decrease in private gross capital formation	5.9
Decrease in goods and services sold to consumers	6.0
Increase in gross national product	17.7
Total	30.2

¹ All figures are annual rates in 2d quarter 1941 prices.

Several facts brought out by this table are of special interest. It may be seen that diversion of output from the area of private capital formation to war purposes was virtually as large in absolute terms as that from the field of consumer expenditures, despite the fact that the latter category of output was four times as large. This reflects, of course, the heavy inroads which war requirements must make upon those specialized types of resources which can most readily be adapted to war production. By the very nature of war output, such resources are concentrated in durable goods industries. These industries account for a much larger proportion of the output which constitutes capital formation than of the output reaching consumers.

It is also significant that the increase in the rate of war expenditures over a year ago was secured more through overall expansion of output than through diversion of nonwar production. In view of the very high level of total operations in the second quarter of last year, this is a testament to the expansion possibilities of our economy. It likewise makes clear, however, the general character of the task accomplished during the past 6 months—particularly when considered with the fact that so much of the diversion represented merely a shift in the source of expenditures from private

Figure 5.—Disposition of Individuals' Income, Seasonally Adjusted Quarterly Data at Annual Rate



Source: U. S. Department of Commerce.

to public rather than a change from civilian to armament production. What was accomplished in the course of these 6 months was the releasing of resources readily convertible to war production from their tasks in the civilian sphere. Completing the actual conversion of these resources into an expanded war industry remains one of the major jobs of the immediate period ahead.

Further Rise in National Income.

During the first 6 months of 1942 national income continued its rising trend, advancing to a record annual rate of more than 112 billion dollars in the second quarter in comparison to a rate of 103 billion at the close of 1941. The tremendous upward sweep of the income flow since the outbreak of the war in Europe may be seen by contrasting the present rate with the 1939 national income total of 77 billion dollars. Although all the major types of income shared in the rise since 1939, the continuing upward movement during the past 6 months is accounted for largely by the wage and salary and farm income components.

The Disposition of Consumers' Income.

Combining the measurements of total income flow to individuals with certain of the streams contributing to gross national expenditure yields a summary picture of the manner in which the income of consumers is being utilized.

It may be noted that taxes paid by individuals, measured on a collections basis, had done relatively little toward checking the rising tide of individuals' disposable income up through the first half of 1942. From an annual rate of 96 billion dollars in the fourth quarter of 1941, disposable income of individuals rose to a yearly rate of 103 billion by the second quarter of this year, an advance of 7 percent.

With war requirements for materials and industrial facilities cutting more and more deeply into the flow of consumer goods, especially in the durables group, the excess disposable income has been accommodated by two general outlets. In the first place the steady advance of retail prices up to the issuance of the General Maximum Price Regulation enabled the diminished output of consumer goods plus a probable draft on inventories of civilian goods to be equated to the larger volume of consumer spending.

In the second place, a substantial part of the swollen income flow was sterilized by an extraordinary rise in individuals' savings. At present this savings flow can be only inadequately traced in detail, but a few enlightening facts are available. Purchases of war bonds and stamps rose from an annual rate of 2.8 billion dollars in the second quarter of 1941 to 7.0 billion in the corresponding period of this year. There is little doubt that some of this increase represents new saving.

Table 1.—Percentages of War Expenditures to Gross National Product and National Income

Year and quarter	War expenditures as percentage of gross national product	War expenditures as percentage of national income ¹
1940.....	3	3
1941:		
I.....	6	7
II.....	8	9
III.....	10	11
IV.....	13	15
1942:		
I.....	20	22
II.....	28	31

¹ National income defined for this purpose inclusive of corporate-income and excess-profits taxes. War expenditures adjusted to exclude indirect taxes. (See notes.)

Table 2.—Gross National Product in Second Quarter 1941
Prices: Seasonally Adjusted Annual Rates

[Billions of dollars]			
Line	Item	Second quarter	
		1941	1942
1	Government war.....	9.0	39.2
2	Government nonwar.....	13.0	12.4
3	Private gross capital formation.....	18.7	12.8
4	Consumers' goods and services.....	75.4	69.4
5	Total gross national product.....	110.1	133.8

Table 3.—Gross National Product or Expenditure: Seasonally Adjusted Annual Rates

[Billions of dollars]

Line	Item	1939				1940				1941				1942	
		I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II
1	Gross national product or expenditure.....	85.1	86.2	88.2	92.9	94.9	94.5	96.1	102.6	110.4	115.9	124.4	127.0	136.7	146.4
2	Less: Government expenditures for goods and services.....	14.5	15.4	15.3	15.1	15.7	16.0	15.7	17.9	20.7	22.0	25.3	30.5	40.1	53.7
3	Federal Government.....	6.2	7.1	7.0	6.8	7.4	7.7	7.4	9.6	12.5	13.8	17.1	22.3	31.9	45.7
4	War.....	1.2	1.4	1.4	1.6	1.8	2.0	2.6	4.8	6.7	9.0	12.1	17.0	27.3	40.8
5	Other Federal Government.....	5.0	5.7	5.6	5.2	5.6	5.7	4.8	4.8	5.8	4.8	5.0	5.3	4.6	4.9
6	State and local government.....	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.2	8.2	8.2	8.2	8.2	8.0
7	Equals: Output available for private use.....	70.6	70.8	72.9	77.8	79.2	78.5	80.4	84.7	89.7	93.9	99.1	96.5	96.6	92.7
8	Less: Private gross capital formation.....	9.9	9.4	10.6	14.2	14.2	13.0	14.3	16.7	16.9	18.3	21.0	19.9	16.0	13.9
9	Construction.....	3.7	3.8	3.9	4.0	4.1	4.4	4.5	5.0	5.3	5.4	5.6	5.5	4.6	3.7
10	Producers' durable equipment.....	4.9	5.1	5.3	6.2	6.3	6.3	6.6	7.2	8.3	8.8	9.9	8.5	7.6	6.8
11	Net change in business inventories.....	.4	-.4	.7	2.7	2.0	.4	1.9	2.8	2.3	3.2	3.8	4.9	3.1	2.8
12	Net export of goods and services.....	.7	.6	.7	1.0	1.7	1.5	1.2	1.3	1.0	.7	1.3	.9	.6	.5
13	Domestic output of monetary gold and silver.....	.2	.3	.0	.3	.1	.4	.1	.4	.0	.2	.4	.1	.1	.1
14	Equals: Consumers' goods and services.....	60.7	61.4	62.3	63.6	65.0	65.5	66.1	68.0	72.8	75.6	78.1	76.6	80.6	78.8
15	Durable goods.....	6.9	6.9	7.0	7.5	8.0	8.1	8.0	9.0	10.9	11.1	10.4	8.8	7.3	6.5
16	Nondurable goods and services.....	53.8	54.5	55.3	56.1	57.0	57.4	58.1	59.0	61.9	64.5	67.7	67.8	73.3	72.3

Table 4.—National Income by Distributive Shares: Seasonally Adjusted Annual Rates ¹

[Billions of dollars]

Line	Item	1939				1940				1941				1942	
		I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II
1	Total national income.....	67.7	69.2	71.6	74.6	74.8	75.6	77.2	81.2	86.0	92.4	97.6	103.0	108.4	112.2
2	Salaries and wages.....	42.9	43.3	44.4	46.6	47.0	47.8	49.3	51.9	55.8	59.7	63.3	66.5	70.9	75.3
3	Other labor income.....	4.0	3.9	3.7	3.6	3.7	3.7	3.7	3.7	3.7	3.8	3.5	3.5	3.4	3.4
4	Total compensation of employees.....	46.9	47.2	48.1	50.2	50.7	51.5	53.0	55.6	59.5	63.5	66.8	70.0	74.3	78.8
5	Entrepreneurial income and net rents.....	12.9	13.1	13.4	14.1	13.8	13.7	13.5	14.4	14.9	16.4	18.1	20.0	21.0	21.4
6	Interest and dividends.....	8.1	8.7	9.2	9.5	9.3	9.3	9.5	9.6	9.5	9.7	10.0	10.4	10.4	10.1
7	Corporate savings.....	-.3	.2	.9	.9	.9	1.2	1.2	1.7	2.1	2.8	2.7	2.6	2.7	2.0

¹ Figures do not necessarily add to totals because of rounding.

Table 5.—National Income by Use of Funds: Seasonally Adjusted Annual Rates

[Billions of dollars]

Line	Item	1939				1940				1941				1942	
		I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II
1	National income.....	67.9	68.6	71.6	74.9	74.8	75.6	77.2	81.2	86.0	92.4	97.6	103.0	108.8	112.2
2	Add: Transfer payments.....	2.3	2.3	2.4	2.2	2.4	2.5	2.6	2.3	2.3	2.2	2.2	2.0	2.1	1.8
3	Less: Corporate savings.....	-.3	.2	.9	.9	.9	1.2	1.2	1.7	2.1	2.8	2.7	2.6	2.7	2.5
4	Employment taxes.....	1.9	1.9	2.0	2.1	2.1	2.1	2.1	2.2	2.3	2.6	2.6	2.8	2.9	3.1
5	Personal taxes.....	2.2	2.3	2.4	2.5	2.5	2.5	2.6	2.7	2.9	3.2	3.3	3.5	5.4	5.6
6	Federal.....	.8	.8	.9	.9	1.0	1.0	1.1	1.1	1.5	1.6	1.7	1.8	3.8	3.9
7	State and local.....	1.4	1.5	1.5	1.6	1.5	1.5	1.5	1.6	1.4	1.6	1.6	1.7	1.6	1.7
8	Equals: Disposable income of individuals.....	66.4	66.5	68.7	71.6	71.7	72.3	73.9	76.9	81.0	86.0	91.2	96.1	99.9	103.0
9	Less: Consumers' expenditures.....	60.7	61.4	62.3	63.6	65.0	65.5	66.1	68.0	72.8	75.6	78.1	76.6	80.6	78.8
10	Equals: Net savings of individuals.....	5.7	5.1	6.4	8.0	6.7	6.8	7.8	8.9	8.2	10.4	13.1	19.5	19.3	24.2
11	MEMO: Consumers' expenditures in average 1941 dollars.....	64.7	65.9	66.1	67.2	68.9	69.0	69.8	71.8	76.3	76.9	76.5	72.5	74.1	70.3

A year ago, moreover, consumers were adding to their outstanding short term debt at an annual rate of 3.2 billion dollars; during the past quarter, consumer credit outstandings were being retired at a rate of 3.3 billion. This change in rate of 6.5 billion dollars is a result both of the consumer credit restrictions now in force and the nonavailability of durable consumers' goods ordinarily in heavy demand at high levels of disposable consumer income. Of the two, the latter is by far the more important factor. The change in consumer credit together with the increase in sale of war bonds accounts for the preponderance of the total increase in savings over this period.

It must be emphasized that, while the rising trend of savings has been a powerful anti-inflationary force to date, overreliance upon this factor in the effort to maintain stable prices is easily possible. It is signifi-

cant in this regard that the shortages of consumers' goods thus far have been largely of commodities which are purchased only at infrequent intervals and of which consumers held a relatively large and well conditioned stock. The spending-saving reaction to future shortages of nondurable goods, which are purchased day in and day out, may easily be of a different character. Furthermore, due to the necessity of debt repayment, a sizable part of the increased saving has come, in a sense, automatically. It will take a much more conscious decision on the part of consumers to maintain such saving once a substantial part of this outstanding debt is liquidated. Consequently, intensification of efforts to hold prices down is apt to be necessary as the months pass, quite apart from the pressure of a steadily rising flow of income.

Table 6.—Gross National Product or Expenditure

[Billions of dollars]

Line	Item	1939					1940					1941					1942	
		I	II	III	IV	Total	I	II	III	IV	Total	I	II	III	IV	Total	I	II
1	Gross national product or expenditure.....	20.0	21.8	22.0	24.3	88.1	22.6	23.9	23.8	26.8	97.1	25.9	29.4	31.1	33.1	119.5	32.6	36.7
2	Less: Government expenditures for goods and services.....	3.6	3.8	3.9	3.8	15.1	3.8	4.0	4.0	4.5	16.3	5.1	5.4	6.4	7.7	24.6	10.0	13.4
3	Federal Government.....	1.6	1.7	1.8	1.7	6.8	1.8	1.9	1.9	2.4	8.0	3.1	3.4	4.3	5.6	16.4	7.9	11.4
4	War.....	.3	.3	.4	.4	1.4	.4	.5	.7	1.2	2.8	1.7	2.2	3.0	4.3	11.2	6.8	10.2
5	Other Federal Government.....	1.3	1.4	1.4	1.3	5.4	1.4	1.4	1.2	1.2	5.2	1.4	1.2	1.3	1.3	5.2	1.1	1.2
6	State and local government.....	2.0	2.1	2.1	2.1	8.3	2.0	2.1	2.1	2.1	8.3	2.0	2.0	2.1	2.1	8.2	2.1	2.0
7	Equals: Output available for private use.....	16.4	18.0	18.1	20.5	73.0	18.8	19.9	19.8	22.3	80.8	20.8	24.0	24.7	25.4	94.9	22.6	23.3
8	Less: Private gross capital formation.....	2.2	2.4	2.9	3.5	11.0	3.5	3.3	3.7	4.1	14.6	4.0	4.7	5.6	4.8	19.1	3.7	3.6
9	Construction.....	.7	1.0	1.2	1.0	3.9	.8	1.2	1.3	1.2	4.5	1.1	1.4	1.7	1.3	5.5	.9	1.0
10	Producers' durable equipment.....	1.2	1.3	1.3	1.6	5.4	1.6	1.6	1.6	1.8	6.6	2.1	2.2	2.5	2.1	8.9	1.9	1.7
11	Net change in business inventories.....	.1	-.1	.2	.6	.8	.6	.0	.5	.7	1.8	.6	.8	1.0	1.2	3.6	.8	.8
12	Net export of goods and services.....	.2	.2	.2	.2	.8	.4	.4	.3	.3	1.4	.2	.2	.3	.2	.9	.1	.1
13	Domestic output of monetary gold and silver.....	.0	.0	.0	.1	.1	.1	.1	.0	.1	.3	.0	.1	.1	.0	.2	.0	.0
14	Equals: Consumers' goods and services.....	14.2	15.6	15.2	17.0	62.0	15.3	16.6	16.1	18.2	66.2	16.8	19.3	19.1	20.6	75.8	18.9	19.7
15	Durable goods.....	1.5	1.9	1.7	2.0	7.1	1.7	2.3	2.0	2.3	8.3	2.3	3.1	2.6	2.3	10.3	1.6	1.7
16	Nondurable goods and services.....	12.7	13.7	13.5	15.0	54.9	13.6	14.3	14.1	15.9	57.9	14.5	16.2	16.5	18.3	65.5	17.3	18.0

Table 7.—National Income by Distributive Shares¹

[Billions of dollars]

Line	Item	1939					1940					1941					1942	
		I	II	III	IV	Total	I	II	III	IV	Total	I	II	III	IV	Total	I	II
1	Total national income.....	16.6	17.2	17.6	19.5	70.8	18.2	18.7	19.2	21.3	77.3	20.8	22.9	24.5	26.5	94.7	25.7	27.6
2	Salaries and wages.....	10.6	10.8	11.0	12.0	44.4	11.5	11.9	12.2	13.3	49.0	13.6	14.9	15.8	16.9	61.3	17.3	18.8
3	Other labor income.....	1.0	1.0	.9	.9	3.8	.9	.9	.9	.9	3.7	.9	1.0	.8	.9	3.6	.9	.9
4	Total compensation of employees.....	11.6	11.9	11.9	12.9	48.2	12.5	12.9	13.1	14.3	52.7	14.6	15.9	16.6	17.8	64.9	18.2	19.7
5	Entrepreneurial income and net rents.....	3.1	3.1	3.4	3.7	13.3	3.3	3.2	3.5	3.8	13.8	3.6	3.9	4.6	5.3	17.4	4.8	5.0
6	Interest and dividends.....	2.0	2.1	2.0	2.7	8.9	2.1	2.3	2.2	2.8	9.4	2.2	2.4	2.3	3.0	9.9	2.2	2.4
7	Corporate savings.....	-.1	.1	.3	.2	.4	.2	.3	.4	.3	1.3	.5	.7	.9	.5	2.6	.6	.5

¹ Figures do not necessarily add to totals because of rounding.

Table 8.—National Income by Use of Funds

[Billions of dollars]

Line	Item	1939					1940					1941					1942	
		I	II	III	IV	Total	I	II	III	IV	Total	I	II	III	IV	Total	I	II
1	National income.....	16.6	17.2	17.6	19.4	70.8	18.1	18.7	19.2	21.3	77.3	20.8	22.9	24.5	26.5	94.7	25.7	27.6
2	Add: Transfer payments.....	.6	.6	.6	.6	2.4	.6	.6	.6	.6	2.4	.6	.6	.5	.5	2.2	.5	.4
3	Less: Corporate savings.....	-.1	.1	.3	.2	.4	.2	.3	.4	.3	1.2	.5	.7	.9	.5	2.6	.6	.5
4	Employment taxes.....	.5	.5	.5	.5	2.0	.5	.5	.5	.6	2.1	.6	.6	.7	.7	2.6	.7	.8
5	Personal taxes.....	.7	.6	.6	.5	2.4	.8	.6	.6	.5	2.5	1.1	.7	.7	.7	3.2	2.3	1.3
6	Federal.....	.3	.2	.2	.2	.9	.4	.2	.2	.2	1.0	.7	.3	.3	.3	1.6	1.8	.9
7	State and local.....	.4	.4	.4	.3	1.5	.4	.4	.4	.3	1.5	.4	.4	.4	.4	1.6	.5	.4
8	Equals: Disposable income of individuals.....	16.1	16.6	16.8	18.8	68.3	17.2	17.9	18.3	20.5	73.9	19.2	21.5	22.7	25.1	88.5	22.6	25.4
9	Less: Consumers' expenditures.....	14.2	15.6	15.2	17.0	62.0	15.3	16.6	16.1	18.2	66.2	16.8	19.3	19.1	20.6	75.8	18.9	19.7
10	Equals: Net savings of individuals.....	1.9	1.0	1.6	1.8	6.3	1.9	1.3	2.2	2.3	7.7	2.4	2.2	3.6	4.5	12.7	3.7	5.7

Table 9.—Relation of Gross National Product to National Income

[Billions of dollars]

Line	Item	1939					1940					1941					1942	
		I	II	III	IV	Total	I	II	III	IV	Total	I	II	III	IV	Total	I	II
1	National income ¹	16.6	17.2	17.6	19.5	70.8	18.2	18.7	19.2	21.3	77.3	20.8	22.9	24.5	26.5	94.7	25.7	27.6
2	Business taxes.....	2.1	2.3	2.5	2.7	9.6	2.6	2.8	3.1	3.3	11.8	3.8	4.3	4.6	4.9	17.6	5.2	5.4
3	Depreciation and depletion charges.....	1.6	1.6	1.6	1.6	6.4	1.6	1.6	1.6	1.7	6.5	1.7	1.7	1.8	1.8	7.0	1.9	2.1
4	Other business reserves.....	.2	.2	.2	.2	.8	.2	.2	.2	.3	.9	.3	.4	.4	.5	1.6	.5	1.0
5	Capital outlays charged to current expense.....	.2	.2	.2	.2	.8	.2	.2	.3	.3	1.0	.3	.4	.5	.6	1.8	.6	.8
6	Inventory revaluation adjustment.....	-.1	.1	-.1	-.2	-.3	-.1	.0	-.1	-.2	-.4	-.5	-.7	-.9	-.1	-3.2	-.7	-.7
7	Adjustment for discrepancies.....	-.6	.2	.0	.3	.0	-.1	.4	-.5	.1	.0	-.5	.4	.2	-.1	.0	-.6	.5
8	Gross national product or expenditure.....	20.0	21.8	22.0	24.3	88.1	22.6	23.9	23.8	26.8	97.1	25.9	29.4	31.1	33.1	119.5	32.6	36.7

¹ Quarterly figures do not necessarily add to annual totals because of rounding.

Statistical Notes

The quarterly figures of the various components of gross national expenditure are interpolations of the annual figures published in the May 1942 Survey. The following notes, therefore, deal principally with methods of interpolation and should be used in conjunction with the notes in the May article explaining the derivation of the basic annual figures. As in the May article the notes are arranged by tables and are keyed to the line numbers appearing in the tables.

TABLE 1

Column 1 of this table was calculated directly from lines 1 and 4 of table 3. Column 2 is designed to show the relation between total earnings of the factors of production and those

factor earnings arising directly from war expenditures. In computing this relation, adjustments were made in both the national income and war expenditure series. Corporate income and excess profit taxes on an accrual basis were added to national income, it being thought that this total more accurately measures the factor cost of current output than the national income net of such taxes. From war expenditures there was deducted an estimate of the other business taxes incorporated in war expenditures. This estimate was obtained by subtracting all the other business taxes, which apply specifically to consumption goods, from the total and allocating the remainder by the ratio of war expenditures to national product. By this method the amount of taxes deducted from war expenditures was .1, .2, and .7 billions of dollars for the years 1939, 1940, and 1941, respectively.

TABLE 2

The deflation of the gross national product for the second quarter of 1942 shown in this table was obtained as follows:

Line 1.—Deflation supplied by Munitions Branch of the Division of Research, War Production Board, by applying relevant price series to the various categories of war expenditures.

Line 2.—Purchases from private industry comprised in this series were deflated by the Bureau of Labor Statistics wholesale price index for all commodities other than farm products and foods. Government wages and salaries in real terms were obtained from an index of employment.

Line 3.—Each component of private capital formation was deflated separately. The Federal Home Loan Bank Board price index of a standard 6-room house was applied to residential construction; E. H. Boeckh's index was used for commercial and factory construction; W. M. Handy's index was used for public utility construction; while farm construction was deflated by a series from the Bureau of Agricultural Economics.

Each component of producers' durable equipment was deflated by the use of a relevant series from the Bureau of Labor Statistics compilation of wholesale prices. No attempt was made to correct the net change in foreign balance or the domestic output of gold and silver for price changes. Business inventories are deflated as one step in the process of obtaining the value of the physical quantity change in terms of current prices.

Line 4.—The commodity component of this series was deflated by a combination of the Bureau of Labor Statistics cost of living index and the Department of Agriculture index of prices paid by farmers for farm family maintenance. The two indexes were weighted in accordance with the ratio of farm and urban family expenditures shown in "Consumers Expenditures in the United States."

The service component of the series was deflated by the service items of the Bureau of Labor Statistics cost of living index.

Line 5.—Sum of lines 1 and 4 deflated as above.

TABLES 3 AND 6

Line 1.—Sum of lines 2, 8, and 14.

Line 2.—Sum of lines 4, 5, and 6.

Line 3.—Sum of lines 4 and 5.

Line 4.—Daily Treasury Statement series of war activities plus outlays of national-defense corporations as measured by change in noncash assets and liabilities. Adjusted to exclude prepayments, offshore expenditures not appearing in United States national income, and purchases of existing assets (land, ships, etc.). These adjustments were based principally on monthly data supplied by the Munitions Branch, Division of Research, W. P. B. Latest available data indicate that the total adjustment for 1941 was a little too large, but revision has been postponed until the data are more complete.

Line 5.—Daily Treasury Statement figures adjusted to exclude items reported as expenditures which do not represent purchases of goods or services.

Line 6.—Annual figures from Treasury, Census, and private sources. Interpolated by means of Census data on pay rolls and Bureau of Foreign and Domestic Commerce estimates of construction by these Government agencies.

Line 7.—Sum of lines 8 and 14. Represents that part of the value of current output not purchased by Government and therefore available to the civilian sector of the economy.

Line 8.—Sum of lines 9 through 13.

Line 9.—These quarterly figures were published in an article in the May 1942 Survey of Current Business.

Line 10.—The interpolation for 1939-41 and the extrapolation into 1942 was based on an index of durable goods output constructed by combining various production and pay-roll series weighted by final cost estimates (Survey for April 1942). The 1942 figures were based entirely on production series and are believed to contain no armaments manufactured in machinery

industries. Since the extrapolation was by output series, Government purchases were deducted to obtain durable equipment for private use. The data for making the 1942 extrapolation are far short of adequate.

Line 11.—Represents net change in physical quantities at current prices. Interpolation based on estimates of the Bureau of Foreign and Domestic Commerce.

Line 12.—Based on monthly interpolations of Department of Commerce annual figures prepared by Mr. Wendell Thorne of Federal Reserve Board. Excludes lend-lease exports and products purchased and used abroad for support of the armed forces.

Line 13.—Represents a combination of two series measuring (a) net export of gold and silver and (b) net change in monetary stock in current prices. When these series are combined the balance represents gold and silver produced in United States and used for monetary purposes plus (possibly) imported metal used for nonmonetary purposes. This latter flow is believed to have been negligible for the period covered.

Line 14.—Sum of lines 15 and 16. Represents the outlay of consumers and of nonprofit institutions for consumption commodities.

Line 15.—Annual figures from April 1942 Survey of Current Business adjusted for Government purchases and interpolated by the Bureau of Foreign and Domestic Commerce's index of retail sales of durable goods stores. In constructing the extrapolation into 1942 it was assumed that only 25 percent of passenger-automobile sales were to consumers.

Line 16.—Annual estimates of the flow of nondurable goods taken from April 1942 Survey, adjusted for Government purchases and interpolated by retail sales of nondurable goods stores. Services based on an unpublished index prepared by the Bureau of Foreign and Domestic Commerce. As further work on services is now in progress the series is not shown separately.

TABLES 4 AND 7

These tables give the national income by quarters in the form in which the data has been published annually for some years. The quarterly figures first appeared in the June 1942 Survey where statistical notes are available. It has been thought most useful and convenient to include the income of military personnel stationed abroad in the national income of the United States. This implies a slight modification in the previous definition of national income.

TABLES 5 AND 8

Line 1.—Quarterly figures as published in the June 1942 Survey.

Lines 2, 3, 4.—These lines contain the adjustments normally made in passing from national income to income payments. Transfer payments and employment taxes are available on a monthly basis, corporate savings on a quarterly basis. Military subsistence has been deducted from transfer payments so as not to appear in disposable income.

Lines 5, 6, 7.—Includes Federal income and State and local income, property, poll, and license taxes and fees. Represents all taxes paid by individuals from income not as part of price of some product or service. Federal tax collections are available on a quarterly basis. Quarterly interpolations of State and local tax collections were made on a straight-line basis or according to current collections of comparable Federal taxes.

Line 8.—Represents the balance of income payments to individuals after payment of taxes.

Line 9.—From line 14, tables 3 and 6.

Line 10.—Line 8 minus line 9. Although a residual, this series has been checked against and found reasonably consistent with an independent quarterly series prepared by the Securities and Exchange Commission.

TABLE 9

Line 1.—Department of Commerce series as published in the June 1942 Survey.

Line 2.—Includes all taxes collected from business enterprises, distributed on a liability basis. Collections of indirect taxes were lagged one month wherever monthly figures were available. Interpolation of State and local taxes was made by utilizing information regarding the movement of tax bases and current collections of comparable Federal taxes. Income and excess-profits taxes were distributed in accordance with estimated net profits after taxes on the basis of the Bureau of Foreign and Domestic Commerce's sample of published corporation statements. For 1942 corporate tax yields were forecast from the sample data using the rates of the Revenue Bill of 1942 as passed by the House of Representatives. The liability for property taxes was distributed along a straight line in the absence of relevant interpolating series.

Line 3.—Includes the depreciation and depletion charges of all business enterprises plus an estimate of depreciation on farm property and on rented residences owned by individuals. Each component of the total was interpolated separately on the basis of its average relationship to some quarterly series. For example depletion was distributed by means of the Federal Reserve index of minerals production and business depreciation was spread by means of the quarterly estimates of nonresidential construction. The resulting series should be regarded as approximate only.

Line 4.—Includes bad debts and special emergency and con-

tingency reserves. Bad debts were broken down by industry and interpolated by means of sales or production series. Special reserves were estimated from the corporate sample.

Line 5.—Interpolated by means of the quarterly movements of the specific categories of producer's durable equipment which include the items charged to current expense. The basic interpolating series are data on production, shipments, pay rolls, etc.

Line 6.—Represents the difference between business inventories as reported and the change in physical quantity of goods in inventory translated into current dollars. Interpolations were made on the basis of the Bureau of Foreign and Domestic Commerce's book value indexes. The series must be regarded as tentative and approximate at the present time.

Line 7.—This series contains all the differences between quantity estimates of gross national product derived by adding the series 2 through 6 to national income and gross national product derived by adding consumer expenditures, private capital formation, and Government expenditures. Discrepancies between the two methods are almost inevitable (1) because the combination of interpolated series based upon financial and production data result in timing errors, and (2) because only very inadequate materials are available for interpolating some of the smaller components in both of the totals. Discrepancies from rounding also contribute to this residual since the billion dollar units in which the estimates were prepared are too rough for certain of the smaller items.

Line 8.—From line 1, table 6.